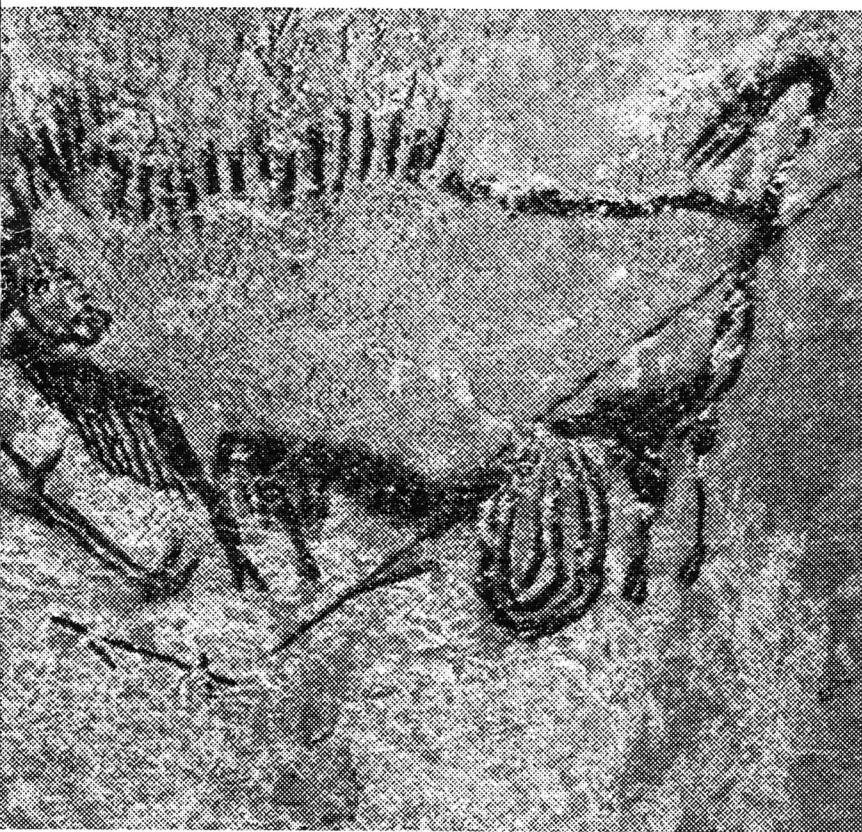
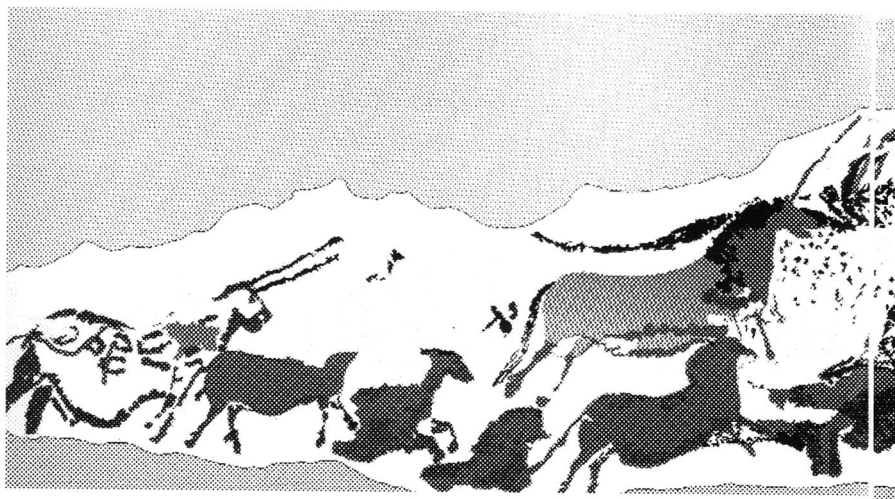


LASCAUX MEASURES



A REVIEW OF THE SYMBOLISM OF PALÆOLITHIC PARIETAL FIGURES

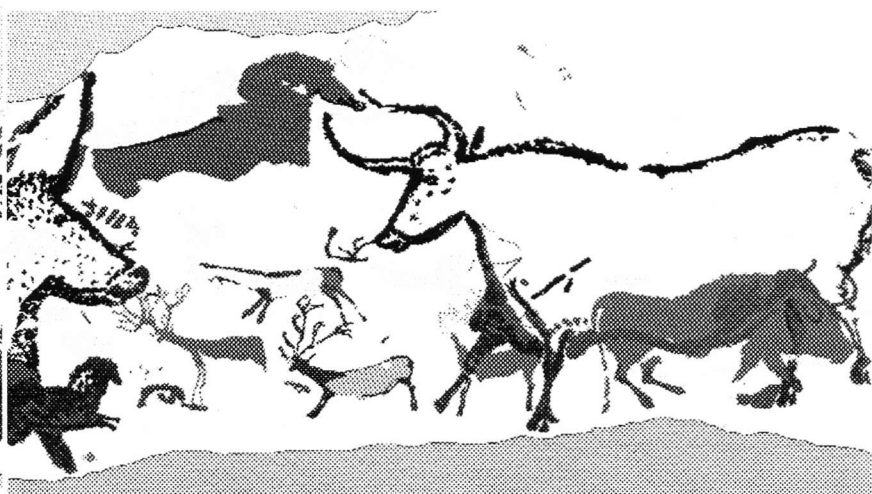


THE CAVE AT LASCAUX surveying the Vézère valley near the town of Montignac in France, has presented archaeologists since its discovery on 12 September 1940, with a trove of insights into the mind of Palaeolithic man. The walls and ceiling of the cavern are illustrated with 1963 inventoried figures, including 915 fauna and 434 geometrical designs¹ – most, in an exceptional state of preservation.

The experts have long assumed such art to be ritual, intended, at least in part, to propitiate the god(s) and ensure success in the hunt. Others have suggested that the figures are totemic, and that the geometrical designs may have afforded refuge for departed – or ‘traps’ for malign – spirits. Viewed as sanctuaries or primitive temples, *grottes* such as Lascaux – the decorated caves, as opposed to the overhangs or *abris*, showing little sign of habitation – also lend to the theory that they may have been conceived to foster fertility.² Yet nowhere in the literature has the suggestion been advanced that the art might possibly preserve measures.

Two of the focal tableaux at Lascaux illustrate this thesis well – the introductory scene in the Hall of the Bulls, and the terminal Shaft Scene – both expanding calendrical tallies.

Each species of animal represents a different measure: the bull signifying ‘half-lunation’ – its horns embracing both the crescent at the terminus of either waxing or waning arc (one horn alone),



and the full moon at the apex of each arc (both horns together); while the horses denote elapsed nights; and the tines of the stag antlers, an aggregate of crescentine phases. This accounts for the deliberate superposition of the horses over bulls in the frieze.

The first two figures in the Hall of the Bulls introduce the two dark nights when no moon appears in the sky: the *uncompleted* horse [not shown here] – appropriately facing away from the row of adjacent creatures – alluding to the *vanishing* earlier lunation; with the second figure's body unfilled to denote absence of the moon from the sky during the two dark nights. This is accentuated by the *two* oblique lines extending from the brow of the second animal – identified by some as a unicorn – the strokes, just above the creature's eye, clearly projecting sightlines (with no crescent-like horns in view: *ie*, no phase detectable on high).

A progression of six black horses extends from the unicorn to the centre of the frieze – their number together with the duplex measure of the unicorn, projecting a count of eight nights. It is notable that computer enhancement³ has isolated the *outlines* of two horses within the body of the unicorn, confirming that it was conceived as an aggregate of two component measures. The line of (eight) horses leads to the pivotal central figure of a two-tone horse – the highest image in the composition – its lower quarters conspicuously absent (*ie*, only half of it visible).

This central horse, with a black head and red torso, represents the waxing half-moon which appears on the ninth night of the lunation – half the moon visible on high (black), the other half submerged in the underworld (red). Its muzzle is appropriately nestled between the horns of the waxing bull figure – half-moon occurring midway between waxing crescent and first full moon.

Flanking the centre of the frieze, two great bulls confront one another: the opposing halves of lunation. The right-hand bull is identifiable as the symbol of the waxing arc by: [a] white horns – denoting increasing brightness; [b] the outer horn – assuming the form of the waxing crescent – twisted tip up to emphasize ascent; and [c] the presence of a penis – a symbol naturally associated with rising. It bears noting that Neolithic cultures much later on, also consigned the waxing arc of the lunation to the right side in *their* iconography – presumably because the right arm conforms to the waxing crescent when articulated (D).⁴

The left-hand bull may be recognized as the waning figure by: [a] the filled black horns – denoting increasing darkness; [b] the relative shortness of the outer horn – assuming the orientation of waning crescent; and [c] the red outline of the horns associating it with death both through blood and the red ochre employed in burials of the dead. Both bulls are uncoloured, or visible only in outline – like the unicorn – because ‘they’ don’t actually appear discrete in the sky, representing instead an *aggregate* of visible phases from crescent to full moon (explaining the *spotted* coats).

Additionally, a sequence of red marks projecting from the waning bull’s field of vision appears to comprise some 14 or 15 dots: the number of phases in the waning arc of the lunation – from day 16 in the cycle when the second full moon appears, to day 30 at its end – amounting to 14 or 15 phases.

A second bichrome horse, superimposed on the body of the great waning bull, may be identified as the waning half-moon by: [a] its two-tone colour; [b] the clear presence of two heads – one (black) beneath another (red with black forehead)⁵ – the waning half-moon surmounting its waxing counterpart which has fallen; and [c] a line of six black dots at the base of the mane – tallying the phases completing the lunation (from night 23 to night 29). This horse’s legs *have* been included to indicate the inclination of the waning arc ‘to ground’ – entrance to the underworld.

The five stags between the great bulls were apparently added after the mural was completed, to judge from the decline in style and the superimposed lines; but the two with preserved antlers may be cited to support the iconography of the bulls, both in their colouring and the presence of the penis on the darker stag. Some uncertainty over the number of tines on their antlers renders my contention that the points appear to accumulate the phases of a lunation, somewhat inconclusive (the presence of the other stags demonstrating, in my view, that the model was tested at least twice and perhaps over three successive lunations, to compare results). Ignoring the tiniest hairlike tips, the red stag appears to support a crown of 16 tines – although the count has risen as high as 22 – while the black boasts 14 (the dark nights fittingly accounted part of the waning underworld arc): their combination accordingly delimiting the lunar interval [$16 + 14 = 30$].

Two other bovids – presumably cows – complete the panel: the red figure beneath the waxing bull conceivably representing the daytime or underworld aspect of the waxing arc (when the sun has replaced the moon in the sky). The arcs of lunation were thus conceived to include 14 nighttime spectres mated to 14 daytime aspects (excluding the two dark nights). The damage to the other bovid – painted over the torso of the waning bull – precludes analysis; although it bears noting that the surviving fragments retain traces of red pigment both on the crown of the skull and about the muzzle (lending arguably to its correlative role as mate for the waning bull).

Entertaining my thesis, this Introductory Frieze preserves more measures of lunation than may be attributable to coincidence: [a] the two dark nights between lunations; [b] its division into waxing and waning arcs; [c] the number of phases in each arc; [d] the number of nights to waxing half-moon; & [e] the number of nights from waning half-moon to waning crescent.

- 1 NORBERT AUJOLAT: *Lascaux: Movement, Space, and Time* (2005) ABRAMS, New York, p64 [sketch p67]
- 2 ANNETTE LAMING: *Lascaux: Paintings and Engravings* Translated by Eleanore Frances Armstrong (1959) PENGUIN, Harmondsworth, pp155–73
- 3 AUJOLAT: *op cit*, pp78–80
- 4 NICK DRUMBOLIS: *God's Shadow: A Chronological Supplement of Sample Figures Illustrating a Continuous Tradition of Covert Lunar Notation* (2004) LETTERS, Toronto
- 5 AUJOLAT: *op cit*, p80

THE SHAFT SCENE AT LASCAUX – secreted from view in a pit 16 feet beneath the floor of the Great Fissure⁶ – complements the putative symbolism of the Introductory Frieze in the Great Hall of the Bulls.

The bison's tail – describing a waxing crescent – incorporates three fringe counts to signify the appearance of the new crescent on the third night of the cycle. Proceeding left along its back (*ie*, counter-clockwise – as the figurative lunation was conceived to advance: from waxing crescent on the right to waning crescent on the left) are 22 hackles between tail and head, with 3 more on the forehead between the horns: completing a count of 30 phases with the horns [$3 + 22 + 3 + 2 = 30$].

The three strokes between the horns, mirroring the fringe of the tail, represent the twin full moons (nights fifteen and sixteen of the cycle) plus the first waning phase (night seventeen) which is frequently confused with the full moon – the last of the strokes accordingly declining, to indicate the start of the waning arc.

Fourteen marks radiate from the underside of the bison – the number of nights from the second full moon (night sixteen) to the waning crescent (night thirty). It bears noting that the tucked and rounded head describes a circle – the fringe of the underside depending beyond the head precisely as the waning phases succeed the appearance of the second full moon.

The underbelly (which has otherwise been interpreted as an evisceration or disembowelling)⁷ appears to exhibit a vulva: the subterranean orifice, or cave, from which the lunar goddess, or moon, was presumed to emerge – the deity further credited with *magically* inducing birth.⁸ This reproductive cavity is segmented from the bison's torso by the so-called spear, in part, to isolate the concept of lunar generation: *ie*, the cycle of lunation advancing from the bowels of the underworld (the mouth of the cave).

The line of the so-called spear is directed beneath the beast to another directional glyph – comprising six lines – aimed at the bird on a stick, and ultimately at the tail of the rhino.

A birdman above the glyph describes a compositional oblique, lending to the suspicion that he may represent the half-moon – whose diameter is inclined to the same *oblique* – the line of the so-called spear through the hind quarters of the bison further simulating the opposing oblique: the lunation figure *quartered*.

Birdman's penis is erect to signify *rising* half-moon; while his counterpart's stick-perch delineates the telltale stroke of *down-fall*, identifying the waning half-moon. The putative half-moon bird figures are accordingly faced in opposite directions. Birds were naturally associated with those phases of the lunation which resemble the outstretched wings of a soaring figure – the gibbous phases between waxing and waning half-moons conversely exceeding the outline – half-moons embodying the culmination or apex of the bird-quarter phases (crescent to half-moon).

Birdman's left hand with four fingers gestures to the bison's right horn (with tip turned up to identify it as waxing crescent). This signifies that the addition of Birdman's counts (eight fingers in all) to the two moonless nights preceding waxing crescent – symbolized by the two spokes of Birdman's beak, which recollect the strokes from the unicorn's forehead in the Introductory Bull Frieze – brings us to the tenth night and the phase of waxing half-moon (embodied by the Birdman).

This disparity with the number of nights to waxing half-moon in the Introductory Frieze, may be explained by the notoriously variable interval between waxing crescent and half-moon,⁹ as well as by the arguable presence of a putative seventh incomplete horse figure¹⁰ to the right of the line of horses in the Hall of Bulls.

Likewise six nights after the waning half-moon – the six rhino 'excretions' – waning crescent appears (depicted in rhino's tail). The rhino is only partially drawn – fading into the underworld – to represent the end of a cycle (his two horns figuring the two dark nights until the succeeding lunation is rendered visible).

It struck me early on in my study of Palæolithic art, that the heirs of the pioneering lunar surveyors may have deliberately advanced from cumbrous incisions on bones and cave walls (requiring exacting labour to compare with future counts)¹¹ to the radical distillate of iconic intervals. Somewhere they kept a control database of their catalogue of figures, each distinguished presumably with characteristic counts (either with dapples or as in the example of the Shaft Scene bison, numerated fringe). Control measures which would conceivably have been secreted in the most inaccessible places underground as a backup of their deciphering keys, for insurance – Lascaux cave, in my estimation, a focal decoder preserve. NICK DRUMBOLIS

- 6 ANNETTE LAMING: *Lascaux: Paintings and Engravings* Translated by Eleanore Frances Armstrong (1959) PENGUIN, Harmondsworth, p94
- 7 LAMING: *op cit*, p95
- 8 NICK DRUMBOLIS: *God's Wand: The Origin of the Alphabet* 2002: LETTERS, Toronto, pp17–21
- 9 the shortest interval between waxing crescent and half-moon for the year 1994, as an example, amounted to 160 hours 39 minutes, while the greatest interval was 197 hours 9 minutes – a problematic disparity for the ancient observer of no less than 36½ hours, or better than a day and a half [NICK DRUMBOLIS: *Myth as Math: Calendrical Significance in the Mosaic Census of the Sons of Israel* 2007: LETTERS, Toronto, p101: n274]
- 10 NORBERT AUJOLAT: *Lascaux: Movement, Space, and Time* (2005) ABRAMS, New York, p80
- 11 ALEXANDER MARSHACK: *The Roots of Civilization: The Cognitive Beginnings of Man's First Art, Symbol and Notation* (1972) MCGRAW-HILL, vp

